



San Jacinto River Waste Pits Superfund Site Overview

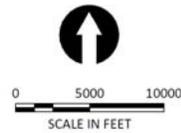
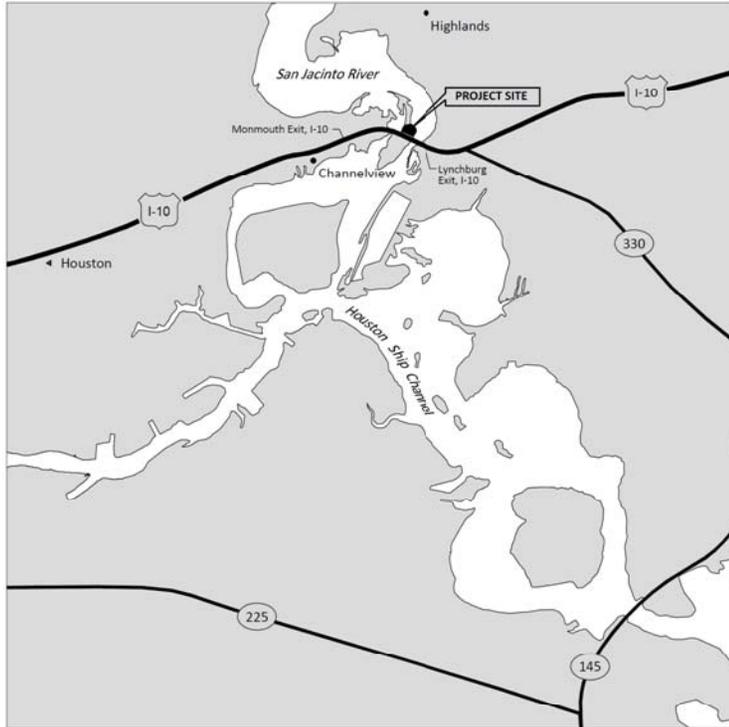
September 22, 2011

DRAFT – Do Not Quote or Cite

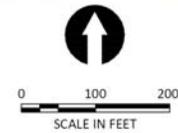
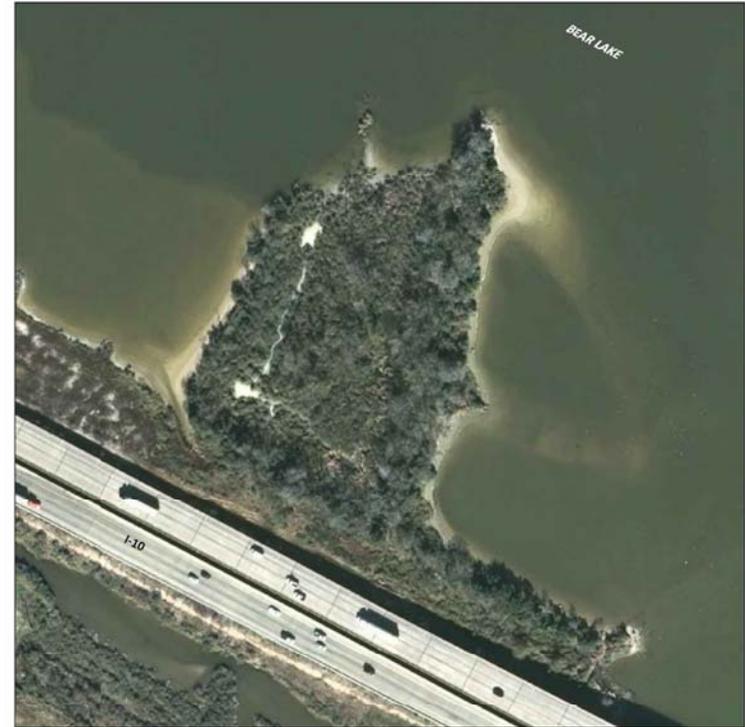


Location

VICINITY MAP



SITE MAP



Site History

- Impoundments, built in the mid-1960s for disposal of paper mill wastes
- Total area within berms is approximately 15.7 acres



Site History (continued)

- After construction, impoundments to the were affected by subsidence and dredging activities



January, 2002



Pre-Superfund Milestones

1960

1970

1980

1990

2000

1965-1966
Waste Impoundment
Construction and
Operation

Mid-Late 1990's
Dredging Impacts
to Northern
Impoundments

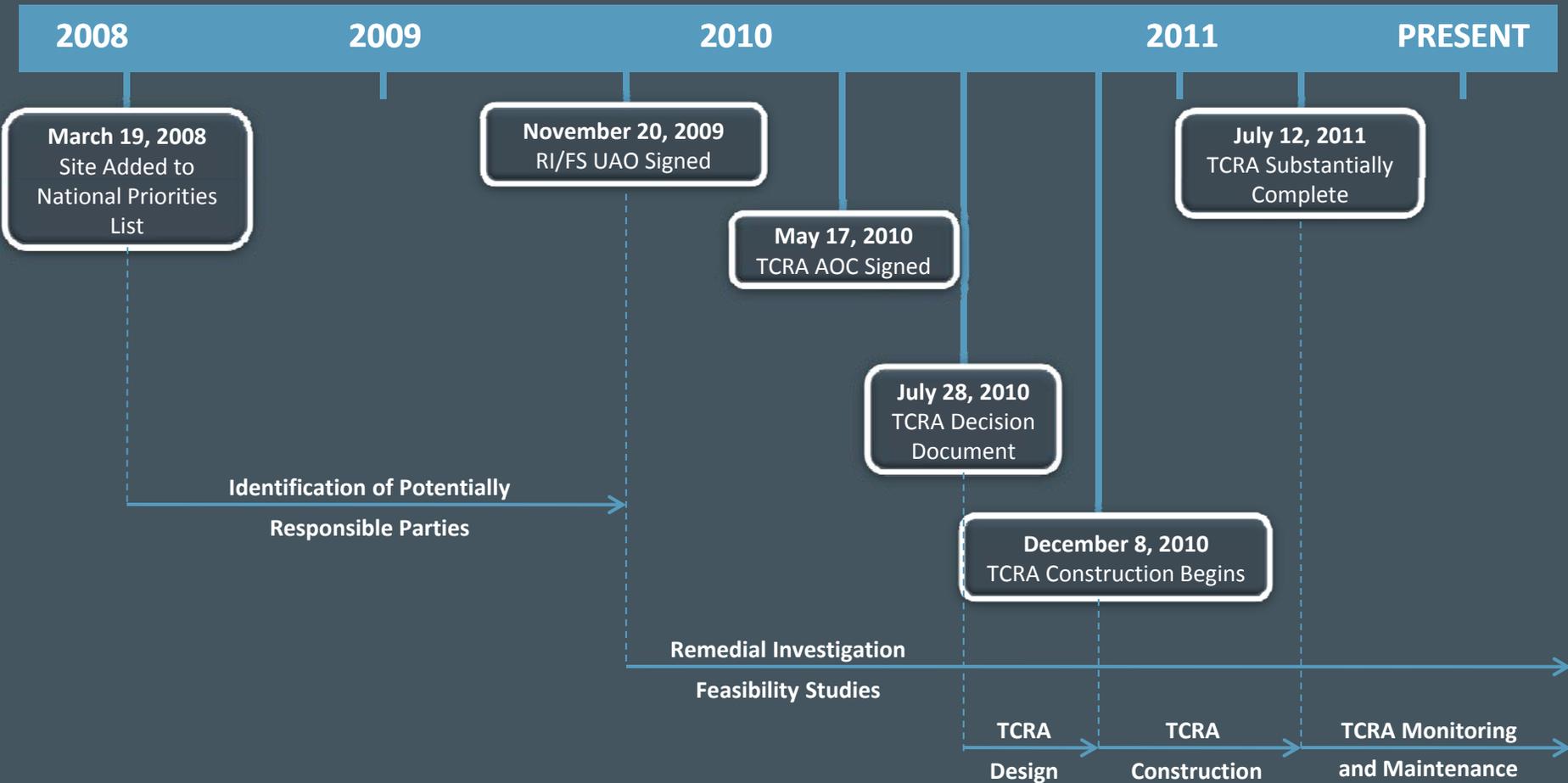
March 19, 2008
Site Added to
National Priorities
List

Fill placed in and over South
Impoundment

Dates uncertain

Subsidence over entire area

Superfund Timeline and Activities



Site Stabilization (TCRA) Design Objectives

- Stabilize source materials within the original 1966 berm footprint with concentrations at or above 4.5 ng/kg TCDD
- Be capable of withstanding forces generated by the river in a 100 year storm event
- Prevent direct human and aquatic life contact with the waste materials.
- Be consistent with potential long-term remediation strategies that could be developed for the Site

Site Stabilization Construction Elements

- Site Fencing
- Signs
- Clearing and Site Preparation
 - TxDOT right-of-way improvements
 - Clearing impoundments
 - Off-site stockpile and loading area preparation
- Waterside placement of geotextile and protective capping materials
- Landside placement of geotextile, geomembrane and protective capping materials

Site Fencing and Access



Site Fencing

Completed Fence
Installation South of I-10

Southwest Corner of Big Star
Property Fence Installation



Access Road

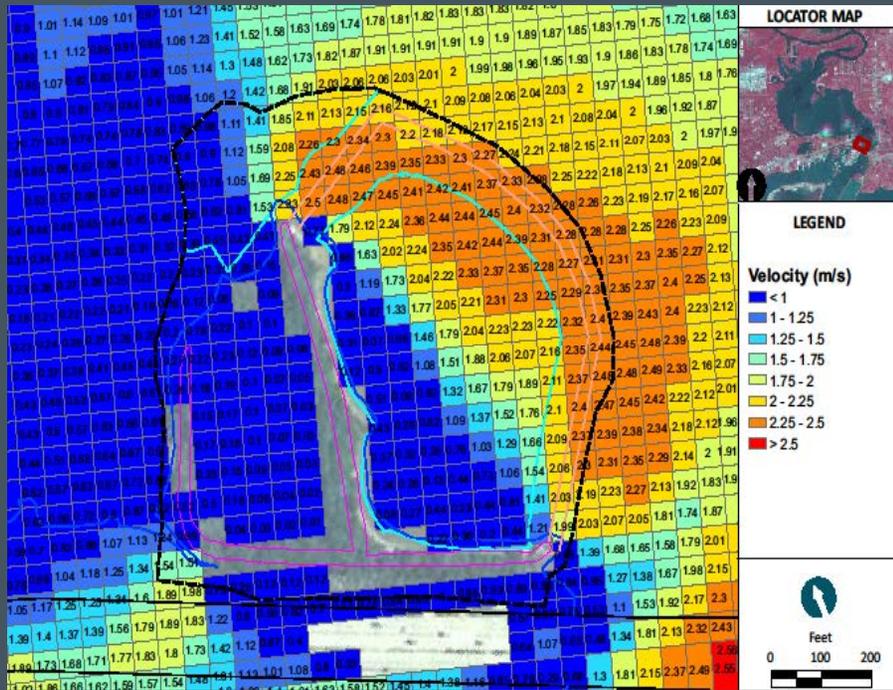
Before

After

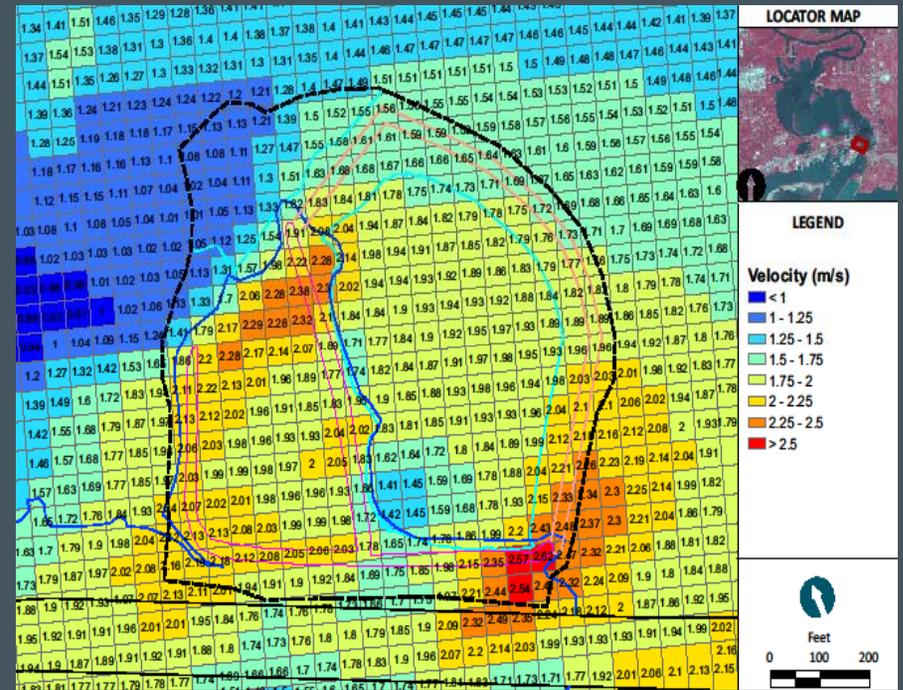


Armored Cap Sizing

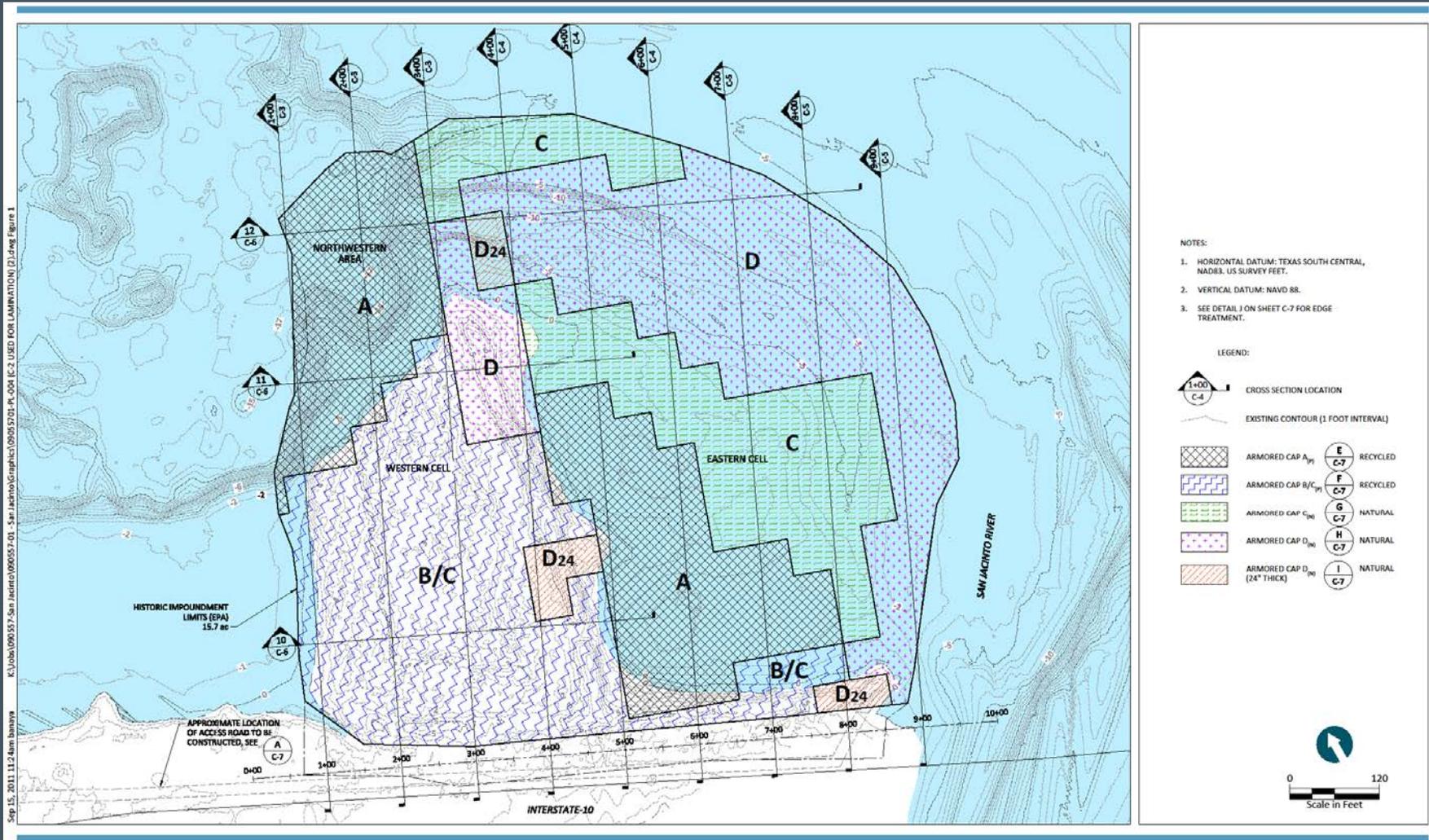
Predicted 10 year flow velocities



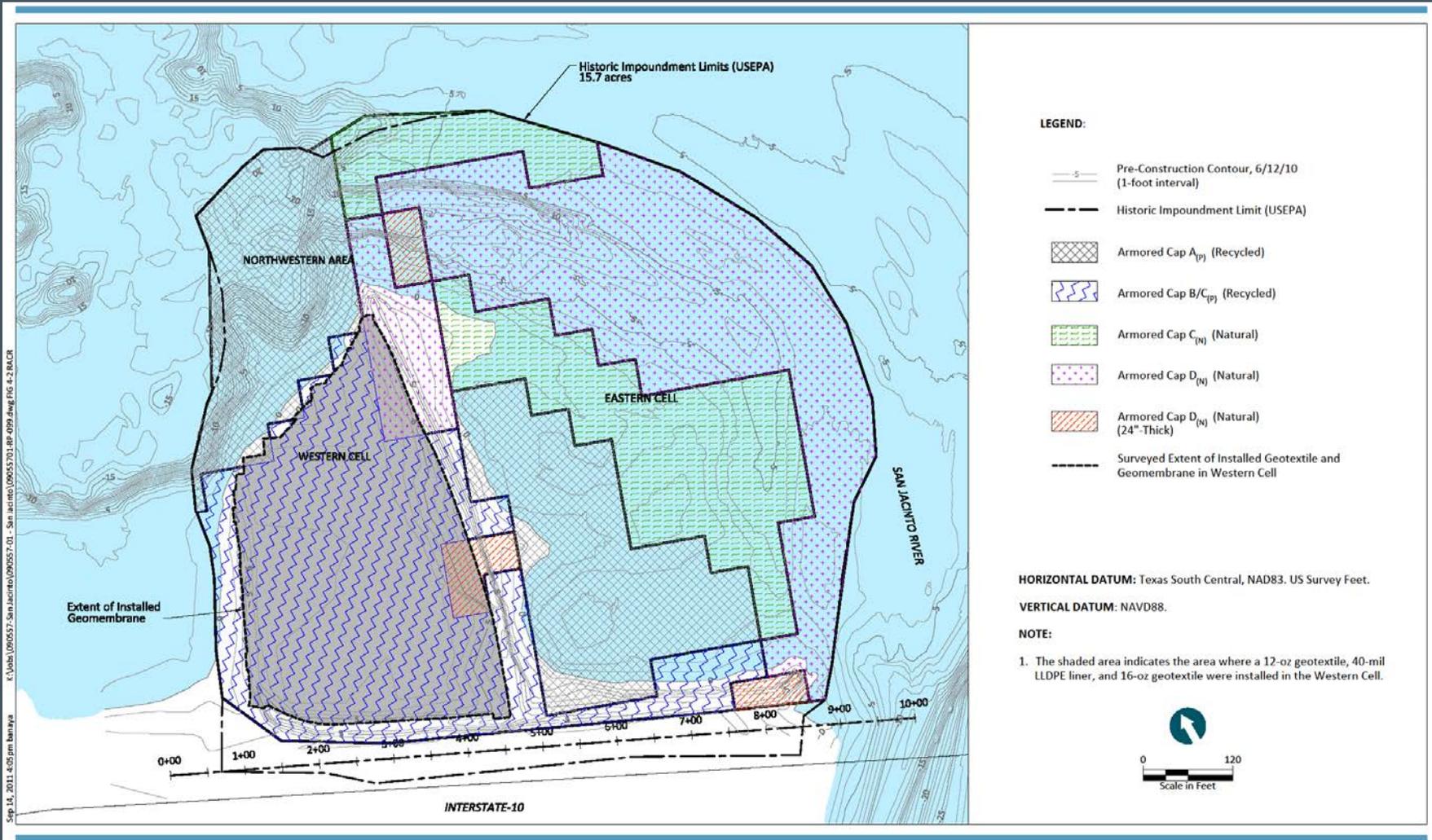
Predicted 100 year flow velocities



Construction Plans - Armor Cap Areas



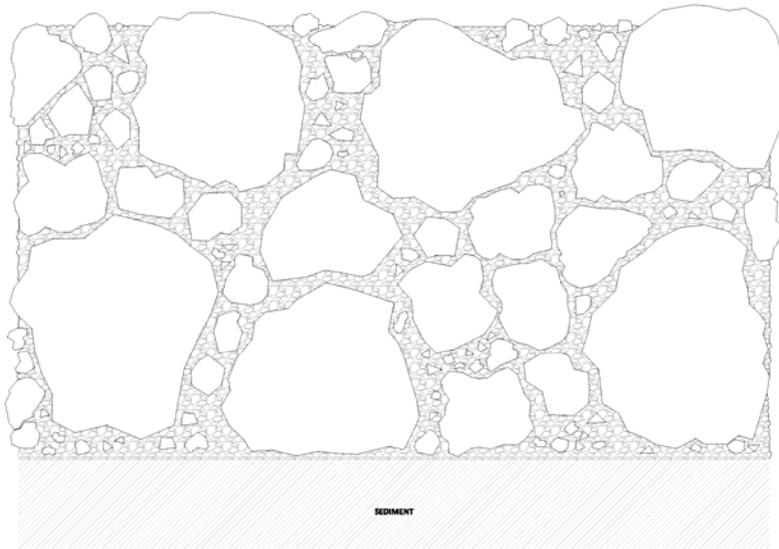
Geomembrane Placement



Armor Cap Types A and B/C

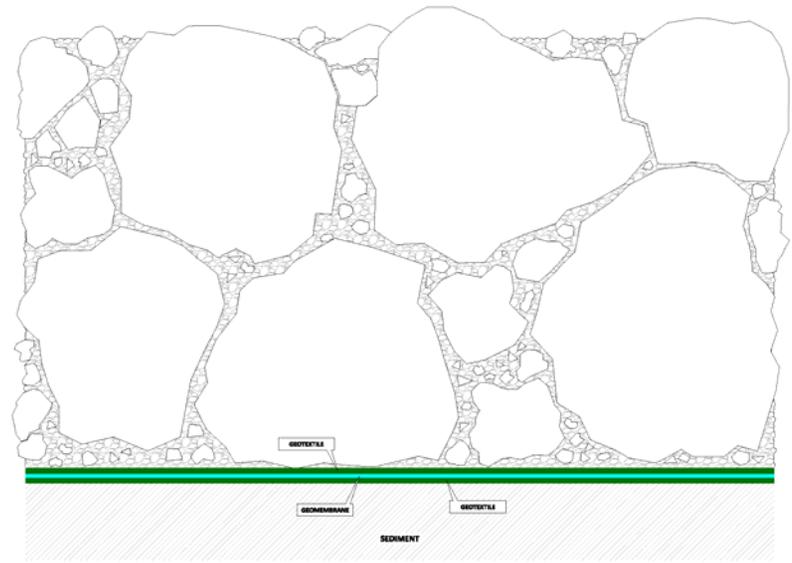
Armored Cap A

0 2
Scale in inches



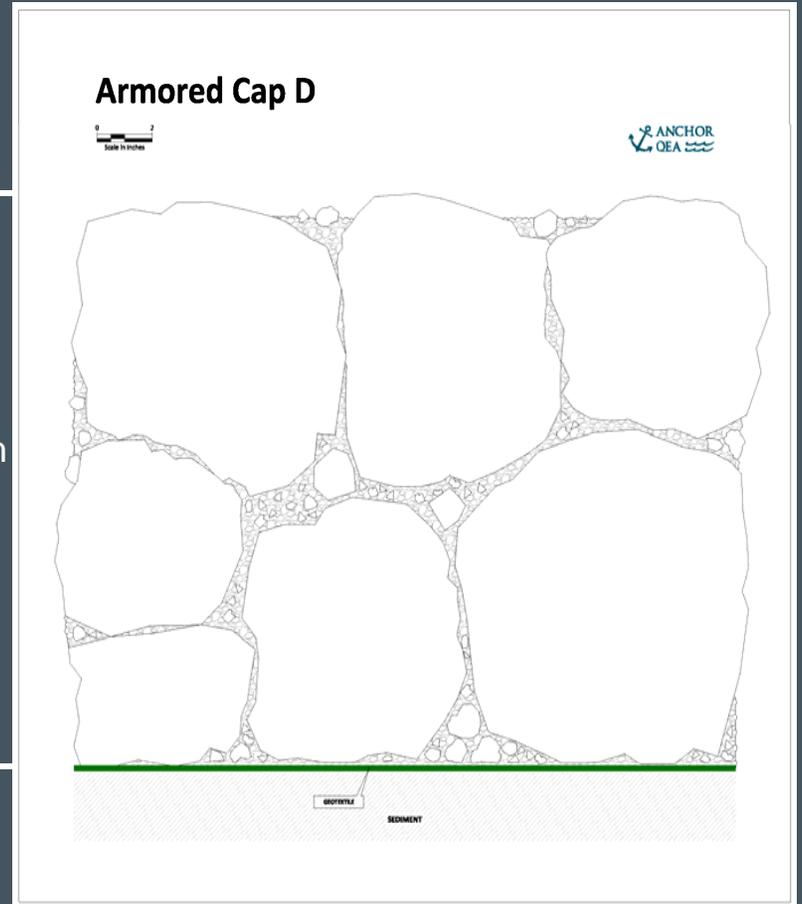
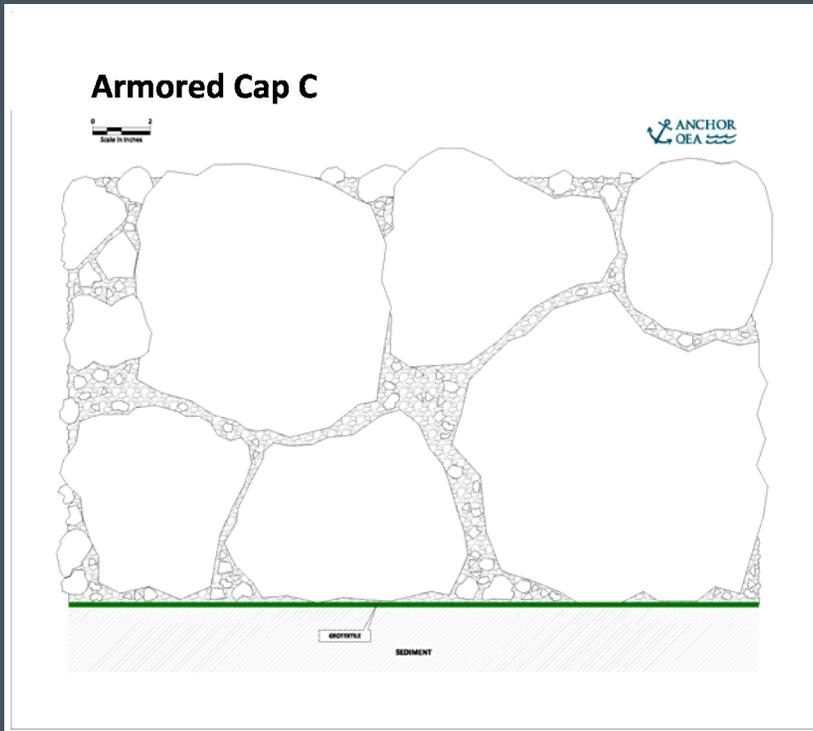
Armored Cap B/C

0 2
Scale in inches



12 inch
min.

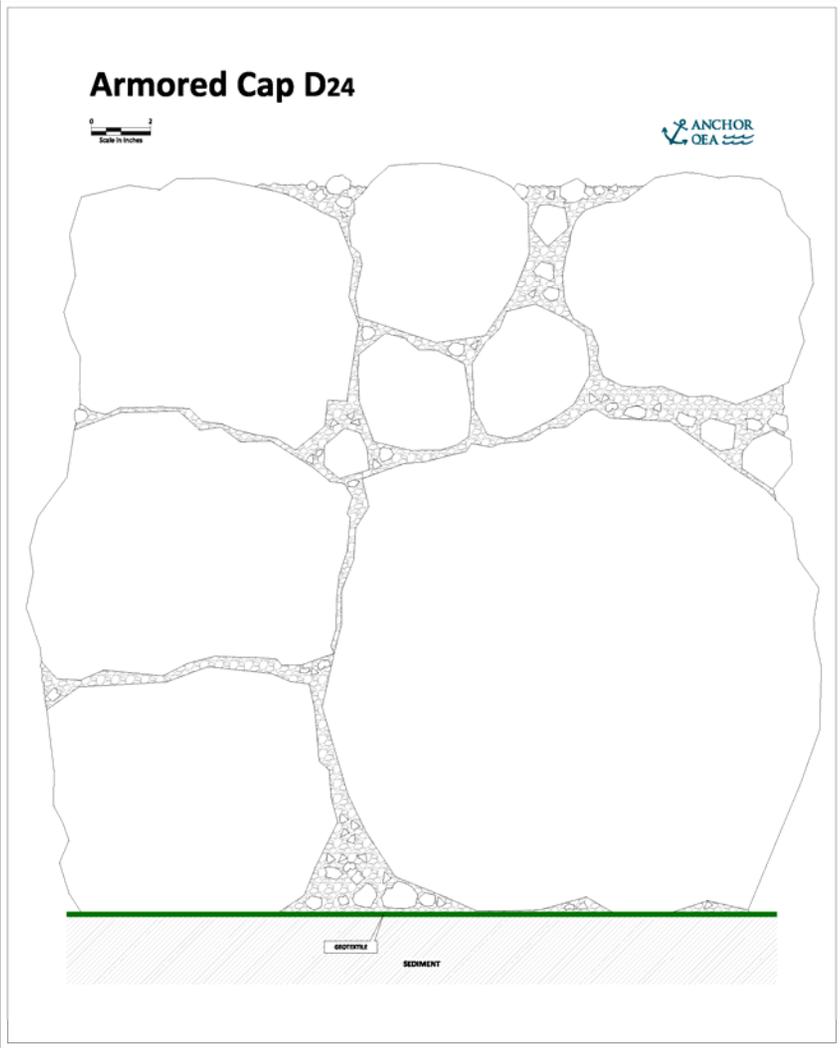
Armor Cap Types C and D



12 inch min.

18 inch min.

Armor Cap Type D-24



24 inch min.

Waterside Armor Cap Placement

Placement of Armor Cap D
Material on Eastern Cell

Placement of Armor Cap D and
Geotextile Material on Eastern Cell



Western Cell Construction

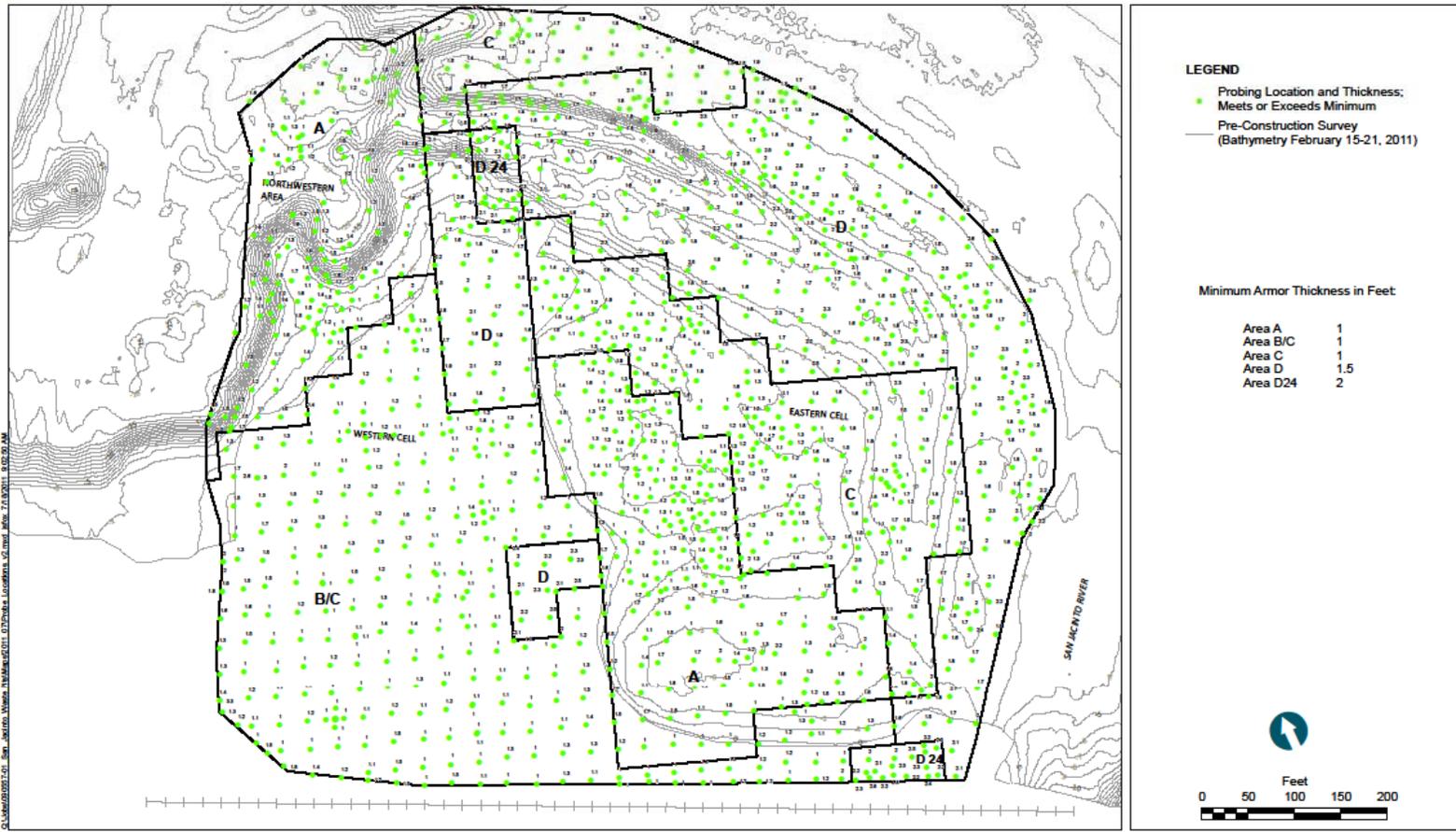
Waste Solidification



Geotextile, Geomembrane
and Rock Placement



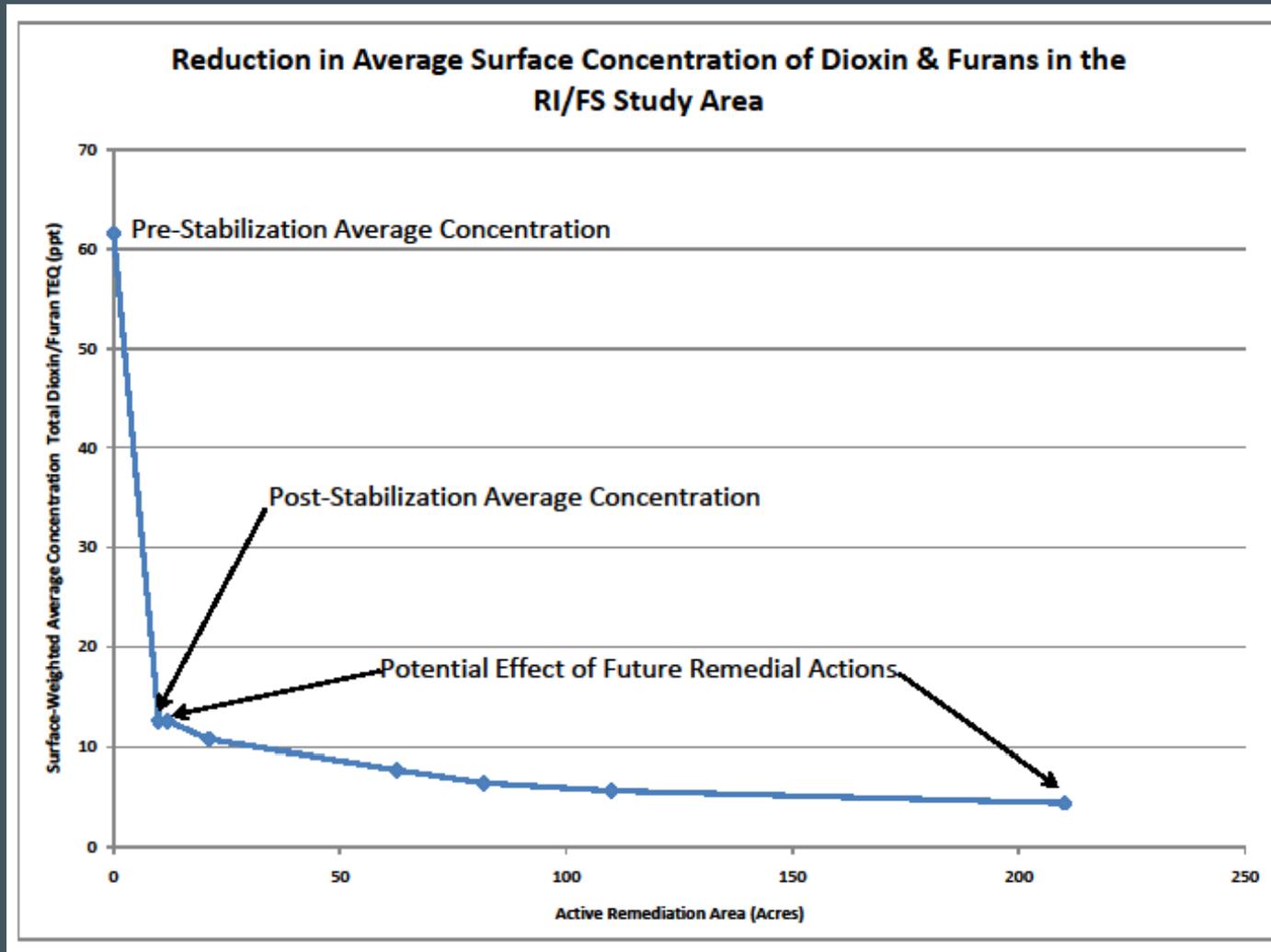
Construction Verification



Completed Cap (July 14, 2011)



Armored Cap Benefits



Monitoring and Maintenance

- 5,700 linear feet of perimeter fence
- 15 warning signs
- 59,000 tons of armored cap rock
 - 15.7 acre area
 - Approximately 3.2 acres in Western Cell



Monitoring Schedule

- Quarterly, Semi-Annually, Annually
- Following major flow events

Interval	Schedule
Baseline Bathymetric and Topographic Survey	August 2011
Quarterly	January 2012
	April 2012
	July 2012
	October 2012
	January 2013
	April 2013
	July 2013
	December 2013

Interval	Schedule
Semi-Annually	April 2014
	October 2014
	April 2015
	October 2015
	April 2016
	October 2016
Annually	Each July beginning in 2017
25-Year Flow Event	Following first such event
100-Year Flow Event	Following each such event